

MATH 448/548 (CPT 430/530)

Numerical Analysis

Spring 2008

Tuesday, Thursday 1:25-2:40, Todd 302

Instructor: Sergey Lapin

Office: Neil 327

Office Hours: M,Tu,F 3:10-4, and by appointment

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Web-page: <http://www.math.wsu.edu/math/faculty/slapin/>

Required book: D. Kincaid, W. Cheney *Numerical Analysis: Mathematics of Scientific Computing*.

Optional book: A. Quarteroni, F. Saleri *Scientific Computing with MATLAB and Octave*.

Course outline:

1. Review of calculus and computer arithmetic
2. Solution of nonlinear equations
3. Numerical differentiation and integration
4. Solution of systems of linear equations
5. Numerical solution of ODEs
6. Numerical solution of PDEs
7. Approximating functions

Grading:

- Homework assignments - 40%
- Midterm exam - 30%
- Final exam - 40%